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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,305	08/27/2001	Koichi Ebata	P/2291-104	5072

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EXAMINER

KNAPP, JUSTIN R

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/940,305

Applicant(s)

EBATA ET AL.

Examiner

Justin Knapp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1-7, 16-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 8-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 17, and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson, US 2001/0032269.

3. Referring to claims 1, 17, and 20, Wilson teaches a system and method for transferring streaming data in packets from a first computer to a second computer through a network comprising:

a sending switch provided in the network, the sending switch comprising a buffering controller (figure 2, element 202, section 0038) for buffering a received packet for a set time period before forwarding it so that a receiving time interval of packets at the second computer has minimum variation to a sending time interval of packets at the first computer (figure 2, element 16). To further explain, Wilson teaches a sending switch receives incoming packets from sending TCP host, buffers them, and sends them to a receiving host. In the event that the buffer level nears capacity the outgoing packets are marked with a congestion indicator by software or hardware that controls the buffer (section 0036, 0040-0042). The receiving host generates an acknowledge (ACK) packet that includes information saying the packet received included a congestion indicator. This ACK is sent back to the sending switch (section 0066) and on to the sending host where the transfer rate is lowered or increased depending on whether or not the ACK received

included a congestion indicator or not. Doing this optimizes and keeps an even transfer rate from the sending host to the sending switch to the receiving host so buffer overflow or underflow does not occur.

Wilson does not explicitly teach wherein a repeater is provided. As taught above, Wilson utilizes a switch. However, Wilson does teach that it should be appreciated that the switch may also be a router, routing mechanism, or any other type of device which may direct data to a destination (section 0038). It would have been obvious to one of ordinary skill in the art at the time the invention was made that a repeater is a type of device which may direct data to a destination and thus be an obvious alternative for the switch taught by Wilson.

4. Referring to claims 2 and 18, Wilson teaches wherein the set time period is determined depending on a reception condition of the second computer, wherein the second computer notifies the repeater of the reception condition (section 0066). As taught above, an ACK is sent back to the switch with a reception condition (the congestion indicator) that is used to adjust the transfer rate of the packets.

5. Referring to claims 3, Wilson teaches wherein the second computer has a buffering function of buffering received packets to absorb delay variations of the received packets (section 0048).

6. Referring to claims 4, Wilson does not explicitly teach wherein the reception condition includes information of an available buffering capacity in the second computer. Wilson does teach monitoring the capacity of the input buffer within a sending switch and marking data packets according to how close the input buffer is to capacity (section 0049). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the same

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monitoring tactics used on the input buffer in the sending switch with a buffer in the receiving host (a second computer). Doing so would provide further decrease the occurrence of congestion or underflow in the network.

7. Referring to claims 5-7, Applicants numerous definitions of “set time period is determined” is construed to be an admission that the criticality does not reside in the type of “set time is determined” utilized and hence are all obvious variants of one another.

8. Referring to claim 16, Wilson teaches wherein the first computer is a server, the second computer is a client, and the network is an IP network (section 0035).

#### ***Allowable Subject Matter***

9. Claims 8-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 19 is allowable.

#### ***Response to Arguments***

*Response to Arguments*

11. Applicant's arguments filed 04/28/05 have been fully considered but they are not persuasive.

On page 9, of the Remarks, Applicant argues in essence that: "The buffer does not keep the sending and receiving times equal. Wilson does not disclose that the received packet is buffered for a set time and that the receiving time interval is approximately equal to the sending time interval of packets."

Applicant's argument is considered not persuasive. When reviewing Wilson, it may not be explicitly disclosed that the buffer buffers a packet for a set time. However, based on what Wilson does teach, it can be concluded/anticipated that the buffer of Wilson must buffer the received packet for a set time period for optimal system performance. The whole point of Wilson's system is to prevent the occurrence of buffer overflow or underflow. A buffer holds only so much data. If there is more data arriving into a buffer than going out of the buffer, a buffer overflow will occur. Similarly, if there is more data leaving the buffer than arriving into the buffer, a buffer underflow will occur. Wilson's system adjusts the transfer rate of data packets propagating through the buffer to prevent these two scenarios from occurring. Once the system reaches its optimized performance in which by reaching an equilibrium where minimum variation is accomplished and the transfer rates are roughly equal to one another, all data packets propagating through the buffer will stay in the buffer for an equal period of time with minimum variation.

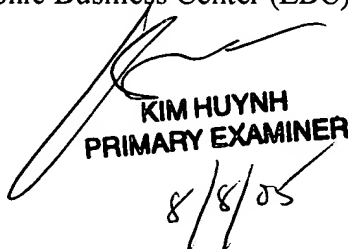
***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made. Applicant must also show how the amendments avoid such references and objections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Knapp whose telephone number is (571) 272-4149. The examiner can normally be reached on Mon - Fri 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
KIM HUYNH  
PRIMARY EXAMINER  
8/8/05

Justin Knapp  
Examiner  
Art Unit 2182

August 5, 2005